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Gieseke

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(54) **STOWABLE INTEGRATED MOTOR
PROPULSOR FINS**

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(*) **Notice** **Subject to any disclaimer, the term of this
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(58) **Field of Search** **114/144 R, 151,
114/23; 440/38, 40, 42, 43, 67**

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(57) **ABSTRACT**

A control surface system is particularly well suited to provide improved control for undersea vehicles having integrated motor propulsors (IMP). The control surface system is deployable beyond lateral peripheral dimensions of the IMP and undersea vehicle. A plurality of arc-shaped control elements is disposed in a stowed position in an annular intake recess inside of an annular duct on the undersea vehicle. Struts connect each of the control elements to the annular duct. A deployment device rotates each of the control elements and the struts radially outwardly beyond lateral peripheral dimensions of the vehicle to a fully deployed position. A latching mechanism selectively engages and disengages the struts to hold the control elements in the stowed position and the fully deployed position, respectively. Launch tubes sized for the undersea vehicles can launch undersea vehicles provided with control surface system.

10 Claims, 4 Drawing Sheets

